XDEEP
DIVING EQUIPMENT

STEALTH 2.0 TEC Side Mount System

User manual

English

Rev.2

1 Introduction

Congratulations!

You have purchased a perfect product in which, without any compromise, we have connected the best existing materials made in Europe and in the USA, with both our technical and recreational diving experience. While designing it, we have also consulted a considerable number of divers who use various configurations of equipment from many various producers.

We hope that our product meets your expectations, regardless of whether you are a recreational diver or an experienced tech diver.

Pre-use guidelines

Before you use any of the products described in this manual, carefully read all the information contained herein with comprehension. Becoming familiar with this information is a prerequisite for safe and long-term use of the products described in this document.

This manual is intended as a guide for correctly trained divers, and so a number of matters related to diving are described here only roughly. In no way can this manual act as a substitute for professional diver training or course. Therefore, before you start using any of the products described in this manual, make sure that you have relevant qualifications issued by a registered diving organization.

If any of the information contained in this manual or if any information label placed on the Buoyancy Compensation Device is not clear, contact the manufacturer for explanation:

XDEEP Spółka z ograniczoną odpowiedzialnością Sp. K.
Ul.Ogrodników 3, 43-227 Góra
Polska
Tel: +48 12 44 66 998
e-mail: biuro@xdeep.pl

Important!

This manual includes two types of designation, which you should pay special attention to. They indicate warnings or other information which may be crucial for health and life of the user or other people. You should read them with special attention:

Danger!

Indicates an imminently hazardous situation which, if not avoided, will result in a serious accident which may cause death or serious injury.

Warning!

Indicates a potentially hazardous situation which, if not avoided, could cause damage to the product or serious injury. It may also indicate wrong and dangerous practices.

2 CE certification

The products described in the following instruction have been a subject of certification in a recognized unit and meet the requirements of 89/686/EWG directive and of the norm EN1809:2001, synchronized with this directive, in its full extent; and of EN 250:2003 covering scuba harness.

The compatibility assessment of STEALTH TEC buoyancy compensator and STEALTH side mount harness has been conducted by:

Polski Rejestr Statków S.A.,
Recognised certification unit nr 1463

Al.Gen.Józefa Hallera 126
80-416 Gdańsk
Poland

STEALTH 2.0 TEC buoyancy compensator has been certified as compatible with 89/686/EWG directive, as far as it contains air compatible with EN 12021 norm. Regarding the lack of EN norms for safety requirements while the use of it takes place with mixtures of higher oxygen content, the above mentioned buoyancy compensator cannot be regarded as one which has been a subject of CE certification with gas mixtures with oxygen level higher than 21% (+/- 2%) as stated in 89/686/EWG directive.

Warning!

In non-EU countries additional conditions, law requirements and buoyancy compensator norms may exist. Double check the current requirements in the country in which you intend to use it.

Warning!

The buoyancy compensator is not a safety jacket: it does not guarantee a proper head-up position on the surface.

3 Safety rules

Danger!

STEALTH 2.0 TEC BC is designed to provide the user with safety and comfort. Improper use may result in an accident, therefore it is necessary to comply with ALL of the following rules.

1. Before every dive, carefully inspect all elements of the equipment, including the BC. For further information on the subject, read: “Pre-dive inspection”.
2. Do not dive with the BC if there are signs of defective operation, damage or wear, such a BC should be withdrawn from use until it is repaired by an authorized XDEEP distributor.
3. During diving, perform mutual buddy-check, visually inspecting the BC against any leakages or other irregularities. Arrange checkout procedures with your buddy and practice relevant diving signs once again before diving.
4. In case of an uncontrolled ascent, you should immediately start releasing air from the BC in order to stop or slow down the rate of ascent.
5. In order not to drown as a result of an uncontrolled descent, in all cases you should be able to use an emergency source of buoyancy or remove the weight. The BC **CANNOT** be the only source of buoyancy!
6. Do not use your BC to lift or bring heavy objects to the surface. Doing so may result in a serious accident due to damage done to the BC or an uncontrolled ascent. For bringing objects heavier than 2kg, use appropriate equipment, such as a lift bag.
7. To prevent the BC from damage, avoid prolonged exposure of your BC to direct sunlight or extreme heat and keep it away from sharp objects.
8. Do not inhale air from the BC. It may contain harmful contaminants, gases, or dangerous bacteria which evolve in damp places.
9. A BC is not a lifejacket and does not guarantee a head-up position of the user on the surface. Therefore, you should always dive with a buddy in case of losing consciousness on the surface.
10. Do not lift or move the BC by pulling the inflator hose. Such practice may result in irreparable damage to the BC.
11. When diving in cold water (below 10 degrees Celsius), you should take into account that the inflator may freeze, as a result of which, it may supply air in an uncontrolled way, or other irregularities in its operation may appear. Before diving in cold water, it is necessary that you practice emergency procedures should the inflator freeze!

4 Elements of the STEALTH 2.0 system

The Stealth 2.0 system consists of a few independent elements, which may be configured depending on individual preferences and on the specification of the type of diving you are engaged in.

- The Stealth 2.0 Harness — Allows adjustment to any size, and thanks to its anatomical construction provides perfect freedom of movement.

- The Stealth 2.0 Weight System — The unique modular weight system allows total flexibility, regardless of the exposure protection worn, and provides for weight placement around the center of gravity which ensures ideal trim.

- The Stealth 2.0 Buoyancy Compensator — The STEALTH 2.0 harness may be used with one of the following three types of buoyancy vompensators:

  - Classic – buoayancy compensator, independent from the harness, providing over 16kg of lift
  - Tec – a two-layer buoayancy compensator integrated with the harness providing over 23 kg of lift;

  - Rec – a two-layer buoayancy compensator integrated with the harness providing 14 kg of lift.

We have described the particular elements of the system as well as the way to configure and adjust them in the following pages.

5 STEALTH 2.0 Harness

The STEALTH harness has been designed for side-mount diving and can be used with or without the integrated weight system.

The picture below shows the harness in its basic configuration, with the weight system installed:

Fig. 2. Harness STEALTH 2.0

1. Upper node (partly under the weight pocket)
2. Lower node (under the weight pocket);
3. Central weight pocket;
4. Trim pockets;
5. Waist strap;
6. Shoulder straps;
7. Crotch strap.

6 The harness adjustment 1/2

Ordering the complete STEALTH 2.0 harness, you will receive all the elements assembled and ready to use. To ensure comfort and safety of use, you should make some final adjustments.

The STEALTH 2.0 harness is offered in one universal size. The adjustment system makes it simple to fit either a very small or very large person by the adjustment of shoulder straps, a waist strap, and a crotch strap, as well as by the adjustment of the distance between the lower and the upper node to accommodate the height of the diver.

The picture below shows the length adjustment points of the particular straps (to make it clear, the harness has been configured without the weight system):

Fig. 3. The points of adjustment of the particular straps

1. Central strap adjustment points – height adjustment;
2. Shoulder straps adjustment points;
3. Waist straps adjustment points;
4. Crotch strap adjustment point.

7 The harness adjustment 2/2

The STEALTH 2.0 provides great comfort and full freedom of movement, providing the lower and upper nodes are placed in the right spot on the back. The lower node should be in such a place so that the waist strap is exactly on the waistline, and the upper node of the harness should be in such a place so that the metal element is between the shoulder blades.

Placing the upper node too high may result in the harness sticking out from the back after you assume an “arched back” position in water.

We begin the harness adjustment process by finding the right spot for the lower harness node. It should be exactly on the lumbar curve of the spine. The picture below shows the right placement of the lower node on the diver's body:

Fig.4. Correct placement of the harness’ nodes

The middle of the upper node (indicated with the dotted line) should be placed at the level of the shoulder blades.

The middle of the lower node (also indicated with the dotted line) should be placed exactly on the waist.

Note: For ease of viewing, the harness has been configured without the central weight pocket. When using the harness with the central weight pocket attached, the rule remains the same.

After adjusting the lower node in the proper place, we adjust the length of the central strap in such a way so that the upper node gets into the right place.

Warning!

Incorrectly adjusted length of the central harness strap may result in decreased freedom of movement or by protruding of the harness.

After you have finished the height adjustment , you need to adjust the length of the shoulder and waist straps. The properly adjusted harness should cling closely to the body without limiting any movements.

8 Mounting of the bungee cord 1/2

The characteristic feature of the side mount configuration are the bungee cords which route around the cylinders valve and draw the cylinder tight into the divers body, creating a very clean and streamlined profile.

There are several different methods of mounting the bungee cord:

1. One continuous length of bungee cord run behind the back (between the metal adaptor plate and upper node),and connected to both the left and right shoulder D-rings with a bolt snap ;
2. Two individual lengths of bungee cord attached to the upper node, and attached directly above the left and right shoulder D-rings;
3. Two individual lengths of bungee cord attached to the upper node, and attached to the left and right shoulder straps by a “floating” loop.

Although the first method is very popular, it does have the disadvantage of trapping the D-rings against the chest. This is why we suggest either of the other two methods.

Fig.5. Attachment of bungee cord to the upper node.

The bungee cord is attached to the harness at the adaptor plate on the upper node.

The mounting is achieved by passing the bungee cord through the holes in the adaptor plate and fixing with a knot. This allows for possible adjustment under water by a partner.

If the single bungee cord configuration is desired, it will need to be run between the metal adaptor plate and upper node to avoid instability.

The pictures below show the two alternative methods of bungee configuration:

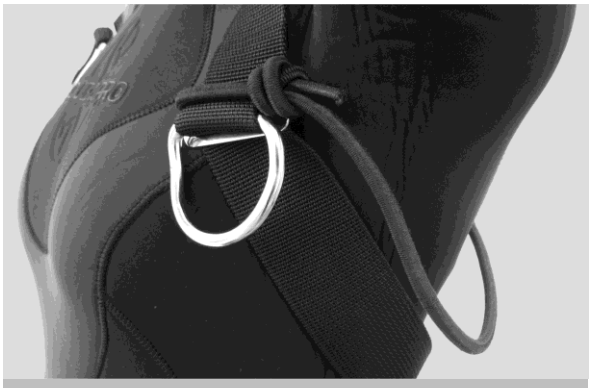


Fig.6. Bungee connected above the D-ring

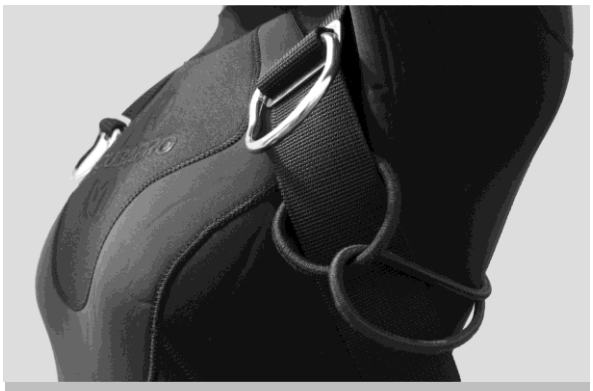


Fig.7. Bungee connected with “floating” loop

9 Mounting of the bungee cord 1/2

The STEALTH 2.0 buoyancy compensator is equipped with additional adjustment points used for mounting the bungee to the compensator which are located in its upper underside. The adjustment points ensure an easy movement of the bungees at the same time stabilizing the BC and preventing the upper part of the compensator from getting loose and baggy.

Fig. 8. Bungee mounting points

The mounting is achieved by passing the bungee cord through the slit between the strap and the stiff part of the BC. The compensator is equipped with three mounting points on either side. Depending on the height and individual adjustment of the harness and bungee cord the user is expected to experimentally choose the most suitable mounting point out of the three in such a way that the bungee cord goes in straight line between the mounting point to the harness and the valve of the cylinder.

Danger!

Improperly installed or worn out bungee cords may cause the separation of the cylinder from the harness. It is important to check the bungees condition and attachment prior to each dive.

9 Central Weight Pocket 1/3

The STEALTH 2.0 weight system in the basic configuration consists of the central weight pocket placed on the back, and in the optional trim pockets which allow for an increase in the total weight capacity of the system as well as improved trim adjustment.

Depending on personal needs, the user may configure the harness by mounting or removing the various pocket versions. It allows you to adjust the capacity of the weighting system both for diving done in the tropics in a lightweight wetsuit, and also for diving in cold water with the use of a dry-suit and thick undergarments.

The harness is delivered in the standard configuration, in which the central weight pocket is located in the highest place. The central weight pocket may be mounted at various heights, which allows you to precisely establish your exact center of gravity, and at the same time the ideal trim.

Fig. 9. Central weight pocket in the extreme positions and placement of the center of the gravity

The element which serves to adjust the central weight pocket is a metal adaptor, which is provided with the harness. It is mounted on a strap which connects the lower and upper nodes and allows the screwing in of the central weight pocket. The picture below shows how to attach the adaptor on the strap:

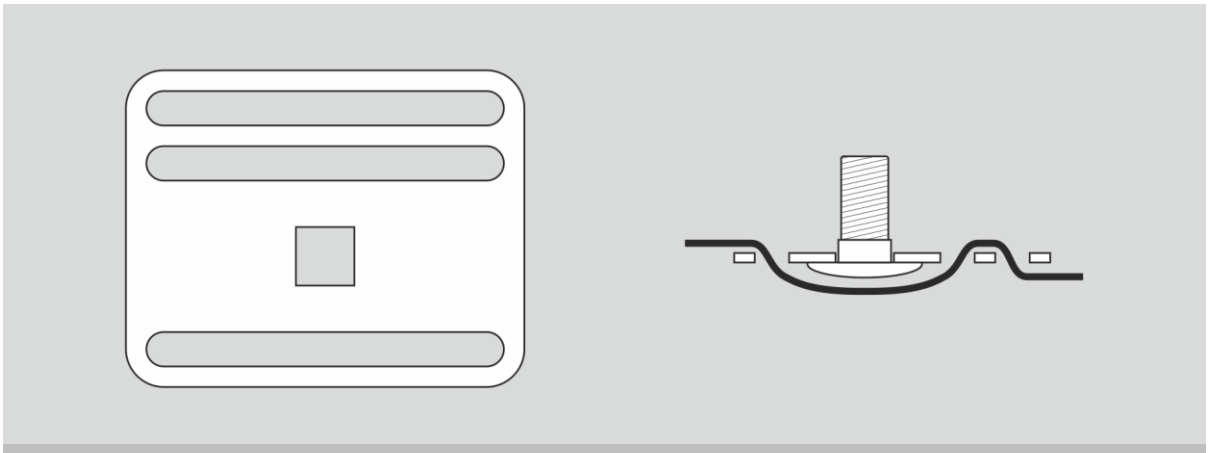


Fig.10. The adapter and it's bolt attachment to the strap

10 Central Weight Pocket 2/3

In order to change the position of the central weight pocket follow the steps below:

1. Unscrew the nut placed inside the weight pocket in its upper part;

Fig.11. Adjustment of the central weight pocket – step 1

2. Turn the harness in a way that the central harness strap, connecting the lower and the upper node, is on top and remove the end of the strap from the lower tri-glide;

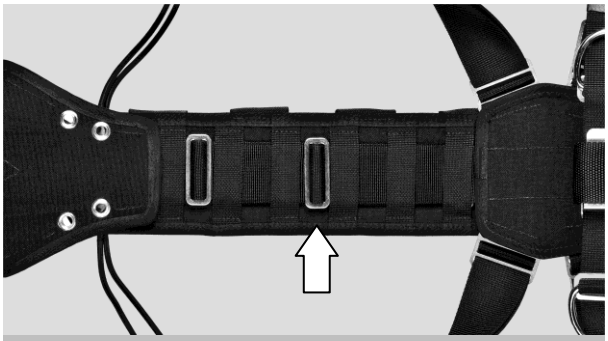


Fig. 12. Adjustment of the central weight pocket – step 2

3. Pull the lower node downwards and remove the strap from the weight pocket.

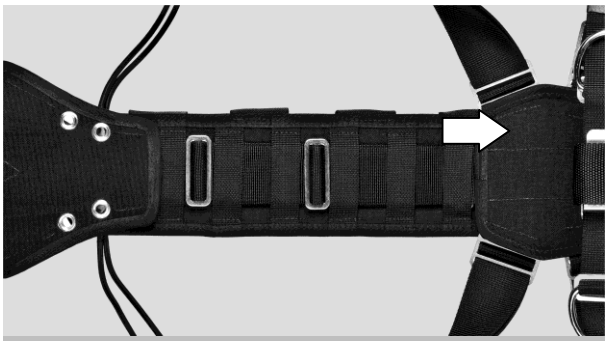


Fig.13. Adjustment of the central weight pocket – step 3

4. Remove the central weight pocket and remove the backing screw from the adaptor plate at the upper node.

11 Central Weight Pocket 3/3

5. Adjust the metal adaptor plate to the desired height for the central weight pocket, remember to attach the backing screw. The backing screw should be on the same side as the logo on the upper harness node.

Fig.14. Adjustment of the central weight pocket – step 5

6. Place the central weight pocket on the harness in the same way in which it was mounted before. The central harness strap should run under the straps at the bottom of the pocket;

7. Move the central strap through the tri-glide integrated with the lower node and remember to adjust the harness to your height, and next secure the loose end of the strap with the stopper in the same way as seen in point 2;

8. Screw the central weight pocket to the adaptor plate.

For people of short statue, after moving the central weight pocket downwards, the lower end of the weight pocket may end below the lower harness node. In such a case the crotch strap needs to be passed through the straps at the bottom of the pocket.

12 Trim Pockets

The STEALTH 2.0 harness enables you to mount additional weight pockets practically anywhere, allowing for optimal placement of the weight, regardless of the type of exposure suit used.

The pockets are mounted on the straps using two attached tri-glides.

Fig.15. The trim pocket installed on the harness' webbing

The typical places for trim pocket mounting are shown in the picture below:

Fig. 16. The typical places for trim pockets

13 Optional droppable weight pockets

The STEALTH 2.0 harness enables the installation of the xDEEP two weight pocket with capacity of 2x3kg or 2x6kg of weight on your waist strap, which were originally designed to be used with back-mount systems.

The pockets are mounted with screws to the flat D-rings located on the waist strap:

Fig.17. The way in which the two weight pockets are mounted

In order to mount the pocket:

1. Remove the buckle and the remaining elements (the rubber D-rings) from the waist strap;
2. Eject the strap partially through the slot of the metal D-ring in such a way that it would be possible to insert the screws into the square hole of the D-ring. The head of the screw should be located between the strap and the tin;
3. Remove the strap again through the slot in the metal D-ring;
4. Place the pocket on the strap and insert the screw in the hole located on the pocket strap;
5. Screw the cap, remembering to use a washer.

14 Other components

Mounting of the light canister

Together with the STEALTH 2.0 harness you will receive an accessory plate enabling you to attach the light canister to your crotch, waist or shoulder strap.

The canister can be attached with bungee cords which hold it securely, and at the same time enable its easy and quick removal during movement through narrow spaces and then its re-attachment.

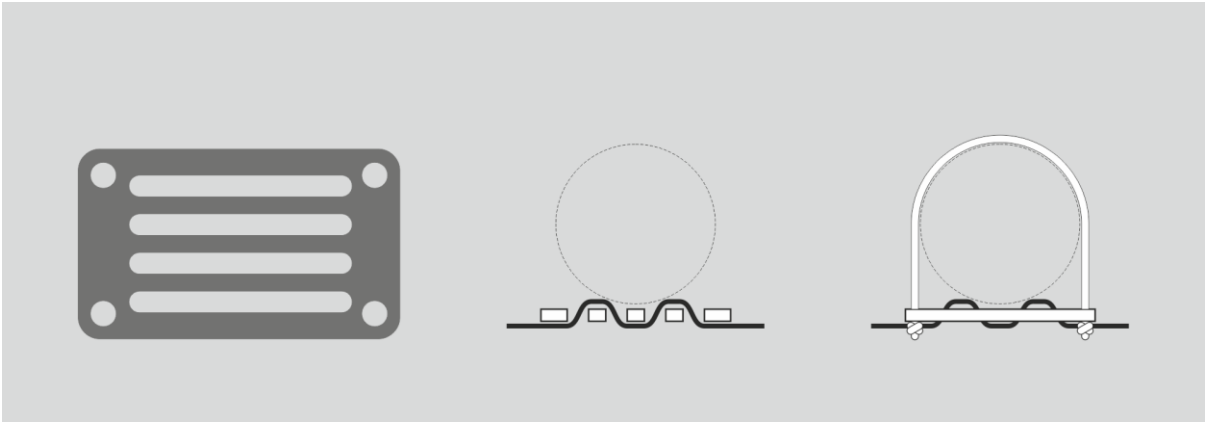


Fig.18. An accessory plate used to attach the battery canister, and method of bungee attachment

An optional “butt-plate” for steel cylinders

The harness can be equipped with an optional plate, commonly called a “butt-plate”, to provide additional comfort when using steel cylinders. The plate is equipped with large and easy to reach D-rings, which may also be used to transport reels, spools, buoys etc.

It is attached to the lower harness node with two screws, in such a way that the plate is UNDER the lower harness node. The crotch strap needs to be placed under the straps located in the plate.

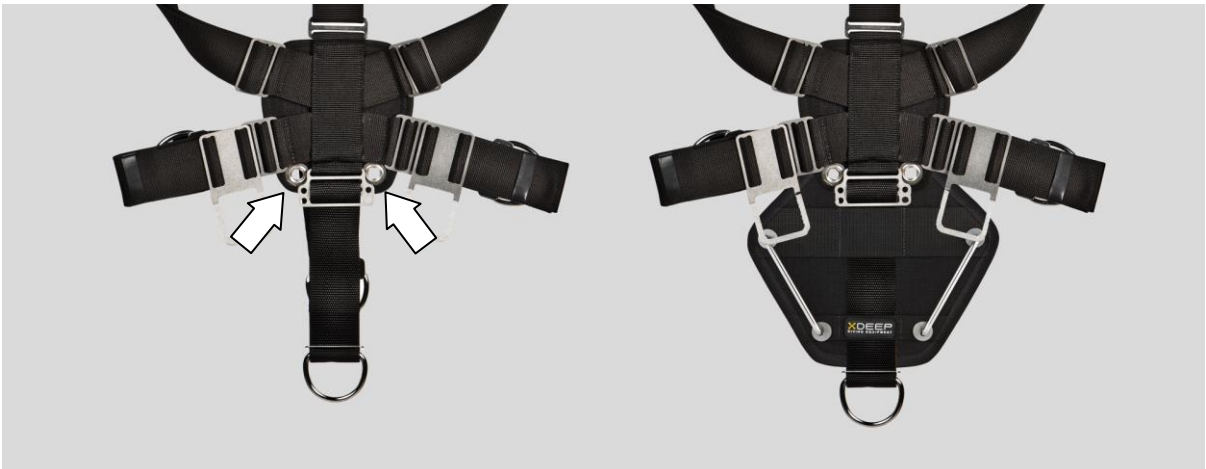


Fig. 19. Way of attaching the pad to the harness

15 Stealth 2.0 TEC BC 1/2

Independent STEALTH 2.0 buoyancy compensator is designed to be used with most of the SM harnesses in configuration with one, two, or more cylinders.

The basic elements of the compensator

Fig.20. STEALTH TEC BCD (from the top side).

Fig. 21. STEALTH TEC BCD (from the harness side)

1. K-Type inflator;
2. Metal parts used for mounting the compensator to the upper part of the harness;
3. Right inflator port for the optional installation of the inflator hose from the right side.;
4. Side bungee mounting points;
5. Over pressure relief valve;
6. Outer shell;
7. Strap mounting the compensator to the harness in the middle part.
8. Lower mounting point of the compensator used for fixing it to the crotch strap.
9. Zipper providing access to the inner bladder.

K-Type inflator

A K-type inflator is a reliable device made of shock-proof techno-polymer which is resistant to environmental conditions. The inflator valve is made of metal, which makes the inflator more resistant to freezing and it can be operated much longer than inflators made entirely of plastic.

The inflator is equipped with an inflator button (1) to inflate the BC with air, a purge button (2) to deflate the BC or inflate it orally, and a mouthpiece (3) to release the air that is deflated or inflate the BC orally.

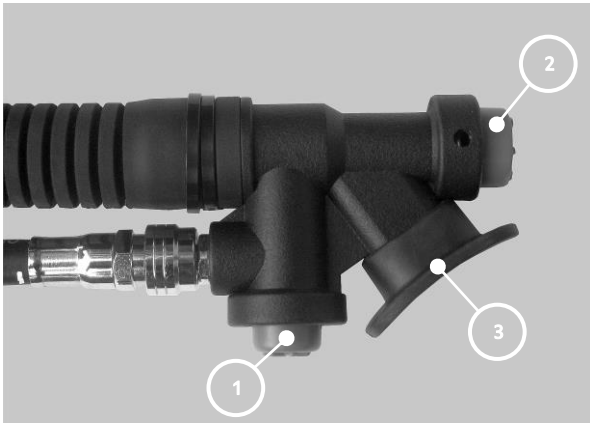


Fig. 22. K-type inflator

17 Stealth 2.0 TEC BC 2/2

STEALTH 2.0 Tec BC is mounted to the harness and while in use it remains fixed to it. The compensator is mounted to the harness in six points.

Fig. 23. Mounting points of STEALTH 2.0 BC

1. Two upper mounting points for shoulder straps of the harness.;
2. Stabilizing Velcro strap located in the lower part of the compensator (not shown in the picture)
3. Loops of the bungee cord mounting the compensator to the waist strap (not shown in the picture)
4. Mounting point of the compensator to the crotch strap

Having ordered the compensator together with the harness you will receive an initially configured set which means that the BC will be fixed both to the shoulder straps and the crotch strap. Bungee cord loops mounting the compensator to the waist strap need to be prepared by the user on their own as their length has to be adjusted to personal measures of the user.

Self-assembly harness and compensator

In the event of a separate order of the compensator without the harness it needs to be mounted by the user following the given order:

1. Dismantle the shoulder strap by passing it through the lower adjustment point and taking off all the mounted elements such as D-rings, tri-gliders or bungees.

2. Place the compensator (1) on the harness and position in such a way that its upper edge coincides with the edge of the upper node and then thread the shoulder straps (2) through the slits of the adjustment points of the compensator (3) in a way shown in the picture below.

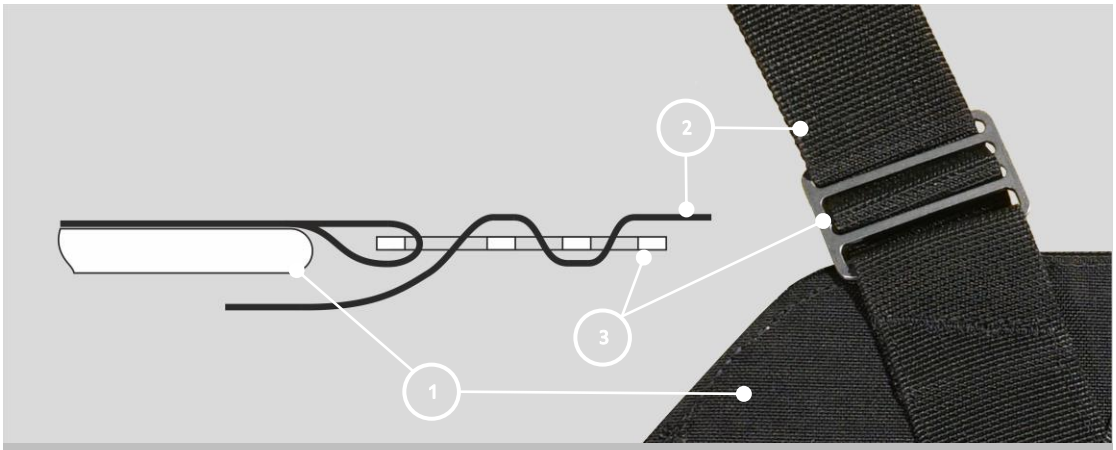


Fig. 24. Fixing the BCD to the shoulder straps

3. Reinstall the d-rings, tri-gliders and other necessary elements on the shoulder straps and then thread the straps through appropriate elements of the lower node of the harness.

4. Install the provided mounting element on the crotch strap as shown in the picture below.

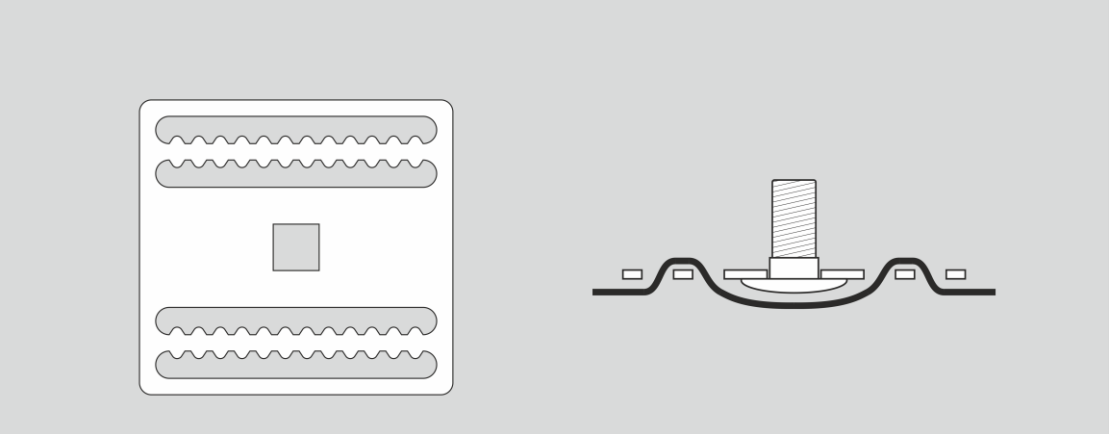


Fig 25. Way of attaching mounting element on the crotch strap

5. Install the flat D-rings that serve as double ender clipping points on the waist strap and follow the instruction.

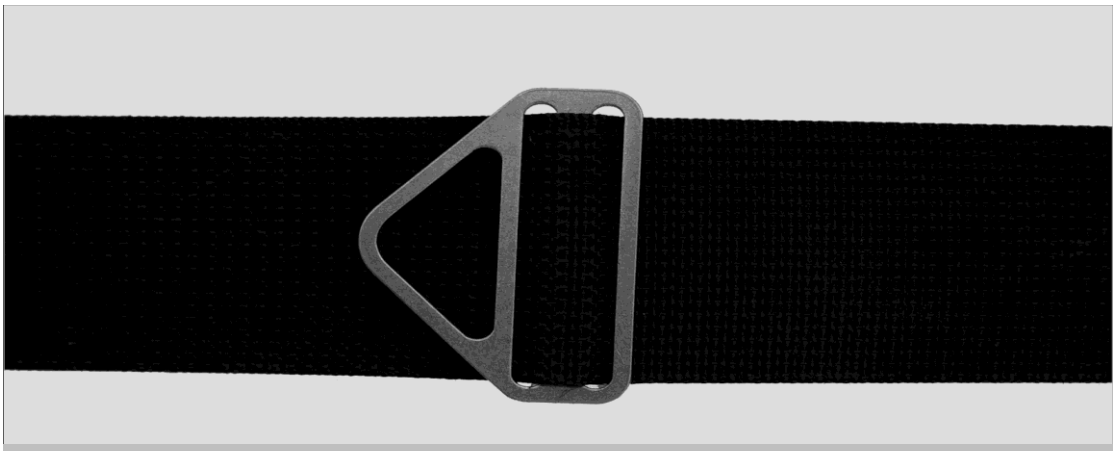


Fig. 26. Way of attaching flat d-ring on the waist strap

How to make side loops from the bungee .

The loops that mount the compensator are made from a 5mm bungee cord whose one end is mounted to the outer layer of the compensator while the other end has a fixed bolt-snap which, when in use, is clipped off to the flat D-ring on the waist strap.

In order to properly install the mounting loop the user should do the following:

1. Prepare a suitable length of the bungee bearing in mind that the bungee cord has to make a loop and making allowances for the length needed for the knots.

2. Put the bungee through a suitable mounting loop of the compensator and install a bolt-snap at the end of the loop.

3. Tie up both ends of the bungee with a knot in such a place that having put the compensator on and clipping off the bolt-snap to the flat D-ring on the waist strap the compensator is steadily fixed. Remember to adjust the position of the flat D-ring on the waist strap. It should be placed as close to the buckle as possible but it should not get in the way while opening and closing the buckle.

4. Follow the same procedure preparing the other loop.

Correctly prepared mounting loops with appropriate length prevent the compensator from coming off the back and make the adjustment comfortable for the user.

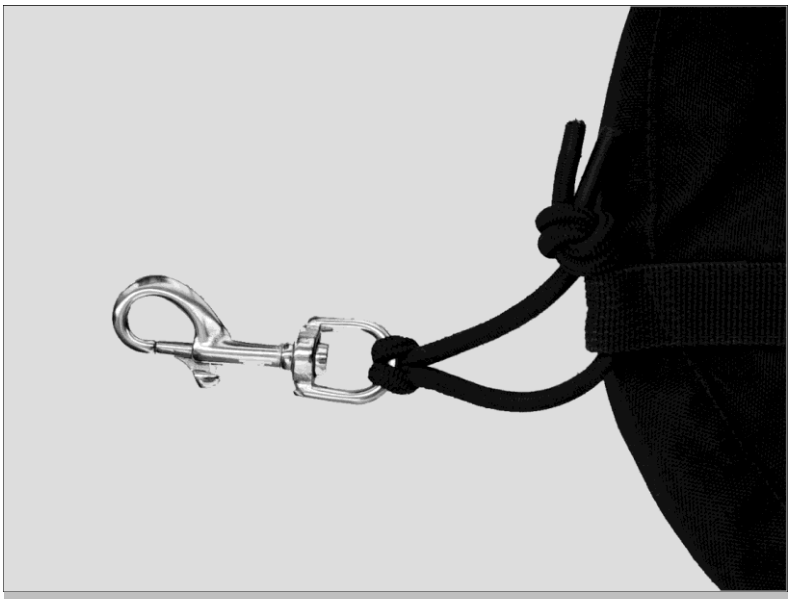


Fig. 27. Bungee loop

Alternative ways of mounting bungee loops

Depending on the needs and preferences you can apply two other ways of mounting the compensator to the harness which are very similar to the method used when mounting the STEATH 2.0 Classic compensator:

1. Tie up both mounting loops of the compensator with the use of a double-ender instead of fixing the loops to the flat D-rings on the waist straps. In this case you need to mount the crotch strap in a standard way.

2. Make another bungee loop which you will fix to the metal eye used for screwing the lower part of the bladder to the crotch strap. Then tie the loop to the ends of the side loops. In this case the crotch loop needs to be slightly longer.

We strongly recommend trying both alternative methods so that in the end you make the final decision as to which method suits you best.

Danger!

Improperly tied harness knots may cause an uncontrolled separation of the compensator from the diver's body that may lead to an immediate loss of buoyancy. Before each dive, carefully examine every knot and condition of bungee cord.

21 ACCESS TO THE WEIGHT SYSTEM

STEALTH 2.0 TEC Setup provides easy access to the weight system including the central weight pocket fixed to the harness. In order to reach the central pocket compartments put the harness down on a flat surface in such a way that the compensator lies down beneath and unclip the bolt-snap fixing the compensator on the waist strap on the left side. Next unfasten the strap mounting the compensator in the central part and pull aside the weight pocket in such a way that you get access to its locking strap. To get an even better access you can unscrew the nut mounting the compensator to the crotch strap although this procedure is not really necessary.

Fig. 28. Parts providing access to the weight system

1. Velcro straps used for mounting the compensator in its central part (element accessible from the harness side);

2. Left and right bolt-snaps that mount the compensator to the waist strap.

18 Connecting the LP hose

To allow for proper operation of the inflator it must be connected to the LP port of the 1st stage of the regulator using the LP hose supplied with the BC.

Danger!

LP hose connection using the 1st stage of the regulator must be made to the low pressure (LP) port only. Connection to the HP port may result in serious injuries as well as damage to the equipment.

In order to connect the LP hose to the inflator you should gently pull at the sleeve of the LP hose's nozzle (step 1), and then put the nozzle onto the quick connector (step 2), as presented in the pictures below:

Fig. 29. LP hose connection (step 1)

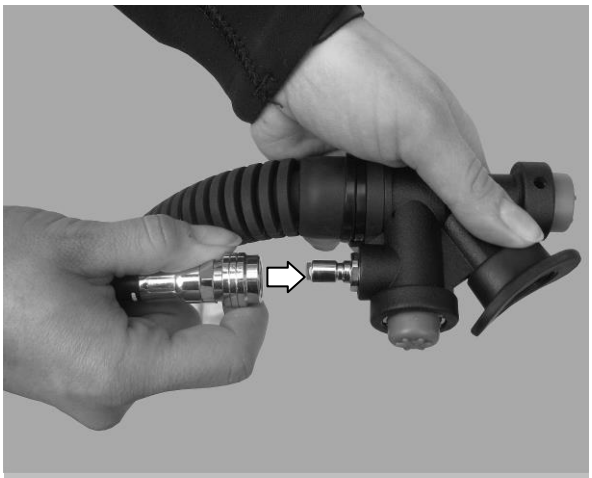


Fig. 30. LP hose connection (step 2)

Warning!

The inflator supply pressure value should be between 6 and 15 bar. Before connecting the inflator to the LP hose, make sure that the pressure from the regulator is within this range.

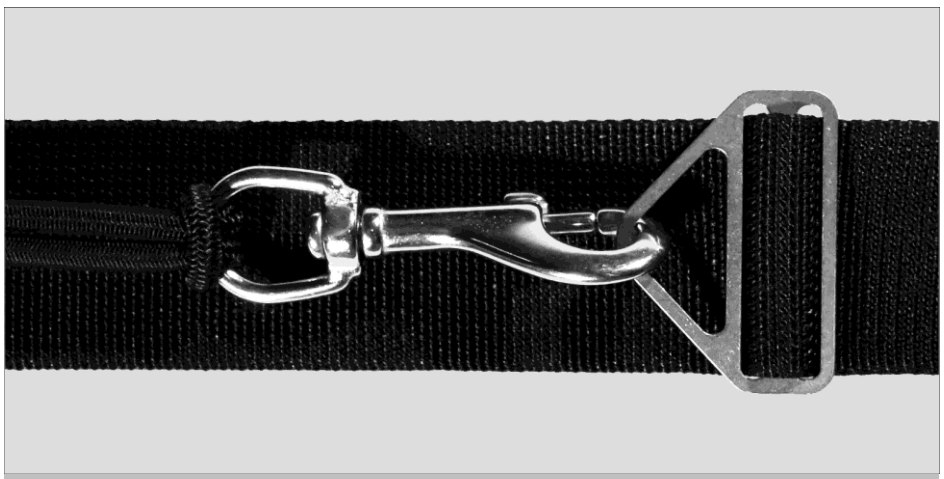
19 Wearing the compensator

STEALTH compensator should be put on after the harness with the weight system have been put on and before donning the cylinders. Mounting the compensator is carried out by putting it on the lumbar region and then tying up the loops with double-enders in front. The following picture shows a properly mounted compensator.

Fig. 31. Properly used compensator

To mount the compensator follow this instruction:

1. Unclip the bolt-snaps fixing the compensator to the flat D-rings on the waist strap.
2. Deflate the compensator when full.
3. Put on the harness and the compensator and close the buckle on the waist strap remembering the crotch strap.
4. Clip off the bolt-snaps fixing the compensator to the D-rings.



Rys. 32. Bolt snap properly clipped to the flat D-ring

5. Mount the inflator in accordance with the procedures recommended for your configuration.

20 Achieving ideal trim

Thanks to the adjustment possibilities of the STEALTH 2.0 System, you can achieve ideal trim by moving the center of gravity in a manner similar to the way a double-tank diver does with a V-weight, allowing for a balanced profile regardless of whether you dive a wetsuit or dry-suit.

If trimmed properly, STEALTH 2.0 allows you to enjoy the ideal position, regardless of the gas volume in the cylinders, and without the need to manage trim with the use of a dry-suit.

Consider these two issues before you start trimming:

I. Ideal trim is reached by locating the weight in such a position that ideal trim is achieved with near empty cylinders;

II. The compensator shouldn't be used for trimming, but only to compensate for shifting gas weight in the cylinders. The compensator should be mounted around the body's center of gravity.

The trimming procedure is as follows:

You should have 50bar of gas in each cylinder and the compensator should remain empty. Put the harness on with a weighting system and the compensator; next walk into shallow water and balance yourself properly.

Check the trim. If it turns you head down, it means that the center of gravity is too high. The central weighting pocket needs to be lowered or the trim pockets need to be mounted closer to your legs. In case it pulls you up (legs down), it means that the center of gravity is too low. Move the central weighting pocket up. If it is already in the maximum top position, move the trim pockets towards your head. In extreme cases the trim pockets may need to be mounted on the arm straps above the upper harness band.

Note: If you use a dry-suit, the air trapped inside significantly influences trim. During the trimming process you should not have too much air in your suit and it should be balanced neutrally, as much as possible.

21 Pre-dive Inspection

Before every dive it is necessary to follow the inspection procedures for checking the correct operation of all BC elements. Even if on a given day you have already dived using your BC, before diving again make sure that all of its elements are working correctly.

1. Check that no element of the BC show any signs of wear, paying particular attention to the condition of webbing, buckles, the outer shell and the LP hose.

2. Check whether all detachable elements are tightened correctly; those are: bolts, valves, hose adapter and single tank adapter (if applicable).

3. Check the BC's oral inflation putting the inflator's mouthpiece into your mouth and pressing the purge button while breathing out. Using this method, inflate the BC to at least half of its volume.

4. Press the inflator button until the automatic dump valve is activated. The automatic dump valve should open with a characteristic sound. The air supply should stop immediately after release of the inflator button.

5. Check the correctness of manual operation (opening) of the dump valve by pulling on its string. By doing so you should release air.

6. Inflate the BC using the inflator button and then press the purge button, checking whether air is being released from the oral inflator's hole. Repeat this step a couple of times.

7. Inflate the BC using the inflator button and leave it fully inflated for 15 minutes. After the 15 minutes the BC should remain full. If it is not, do not use it until the defect is removed by an authorized XDEEP service center.

8. During descent, stop at three meters at the most and perform mutual buddy-check, visually inspecting the BC against any leakages. Caution: Air bubbles appearing on the outer shell do not necessarily mean leakage. They may result from air being stuck in the structure of the fabric or under the inner shell.

22 Operation

Buoyancy on the surface

In order to ensure maximum buoyancy on the surface, before getting into the water (or directly after ascending) inflate the BC using inflator button. Stop inflating the BC when the automatic dump valve activates.

Danger!

Before jumping into deep water from a boat or a bank inflate the BC using the inflator button. Getting into water with the BC not fully inflated may result in drowning!

Descent

In order to descend, press the purge button holding the inflator over your head. Use the purge button with care, as releasing too much air may result in an uncontrolled descent.

Neutral buoyancy

Maintain neutral buoyancy for a given depth during the dive, using the inflator and purge buttons as needed.

In order to ensure precise control over buoyancy you should press the inflator button for a short moment. If more air needs to be added to the BC, press the inflator button for a short moment several times.

During release of air from the BC hold the inflator over your head, so the air may escape freely.

Ascent

Ascending too quickly may result in decompression sickness. Therefore you must control the rate of ascent by gradually releasing the expanding air from the BC with the purge button.

Danger!

Ascending or reducing the depth level too quickly may result in decompression sickness (DCS). Always pay adequate attention to buoyancy control and respect the ascent rate limits.

23 Post-dive maintenance

Disconnecting

After diving, take out the weight from the weight pockets (if applicable), disconnect the LP hose from the inflator, and then disconnect the tank.

Draining

Inflate the BC orally using the purge button of the inflator. Next turn the BC to keep the automatic dump valve at the lowest point of the BC. Pull the valve string, at the same time pressing the BC with your hands to make water flow out by the open dump valve. Repeat the procedure until all water is removed from the BC.

Rinsing

Every time you use the BC in salt or chlorinated water, it should be rinsed thoroughly inside and out with fresh water. Never use hot water for rinsing!

To rinse the BC inside, press the purge button of the inflator and fill the BC approximately ¼ full with water by means of a garden hose spout or other source of fresh water. Rotate the BC several times, and next drain it according to the above procedure.

Warning!

Do not press the inflator button when rinsing your BC! This may make damp and other contaminants enter the inflator valve, which may cause subsequent damage to the valve.

Drying

After every use, you should dry the BC thoroughly. When drying, the BC should be fully inflated and hung in a dry, airy and dark place. When drying, do not expose your BC to direct sunlight or extreme heat!

Storing

Store your BC partially inflated and hung in a dry and dark place away from sharp objects, lubricants, fuels or solvents.

Warning!

To prevent your BC from damage, you should never keep it wet for a longer period than a dozen or so hours.

24 Repair and maintenance

STEALTH 2.0 TEC BC does not contain any elements which can be repaired by the user, and so all repairs (including lubrication or replacement of worn-out elements) should be performed only by trained technicians holding certificates issued by the producer (authorized service center).

For repair of STEALTH 2.0 TEC BC, only elements and spare parts supplied by the producer must be used. Elements and spare parts from other sources, although identical by all appearances, may have slightly different properties, which may negatively affect the working life of the BC.

The only maintenance procedure which may be performed by the user is rinsing the BC in fresh water. It is recommended after diving in salt or chlorinated water. On no account should detergents, cleaning agents or solvents be used for cleaning the BC. In case of heavy soil, contact the producer for additional information.

Warning!

For safety reasons, the BC should be overhauled after every 200 dives, however not less frequently than once a year. Such overhaul should be performed by an authorised XDEEP service centre.

25 Troubleshooting

The STEALTH 2.0 System gives huge possibilities for configuration adjustment to your own needs. Sometimes it happens that divers make “rookie” mistakes as far as the harness or compensator configuration are concerned. Here are some basic problems and solutions to them:

The harness sticks out from your back when you arch your body

It is a typical situation, since the harness is improperly adjusted to your height. The upper node is then placed too high.

Solution: According to the description in “Adjustment of the harness” chapter, adjust the length of the central harness strap (the one running across the spine) so that the upper node is located in the right position.

The compensator sticks too far out from your back.

If you use lower “recreational” mounting points it will not be as flat as if using the upper “overhead diving” mounting points, it does not however make much difference in recreational diving. If you use the upper points and the compensator still sticks out, it means that the loops are just too long.

Solution: Check if the length of the loops is accurate. If you use lower mounting points and you dive in wrecks and caves, change the mounting points to the upper ones.

The compensator sticks out from your back at the bottom.

The compensator works best when the crotch loop is property fastened and has the right length. If the loop is too long, the compensator, when it is full may stick out slightly from the back after assuming a vertical position.

Solution: Properly adjust the element mounting the compensator to the crotch strap.

26 Technical specification of the BC

Basic parameters

Type	Side mount buoyancy compensator, mounted to the STEALTH 2.0 harness.
Buoyancy	19 kg
Outer shell fabric	Cordura 1100 dTEX
Inner bladder fabric	Nylon 440 dTEX
Weight of the dry compensator (without harness).	1.4 kg

Inflator

Type	K-Type inflator
Supply pressure	Minimum: 6 bar Maximum: 17.23 bar (250 PSI)

Permissible tank parameters

Tank type	Side Mount configuration
Maximum size	4x 15 liters

Operating temperature

Water temperature	Between -2°C and 40°C
Air temperature	Between -20°C and 60°C

XDEEP
DIVING EQUIPMENT

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